

## SYSTEM FOR HEAD AND TAIL CACHING

### ABSTRACT OF THE INVENTION

A head and tail caching system. The system includes a tail FIFO memory having  
5 a tail input to receive incoming data. A memory is included that is operable to store data  
that is output from the tail FIFO and output the stored data at a memory output. A  
multiplexer is included having first and second multiplexer inputs coupled to the tail  
FIFO and the memory, respectively. The multiplexer has a control input to select one of  
the multiplexer inputs to coupled to a multiplexer output. A head FIFO memory receives  
10 data from the multiplexer output, and outputs the data on an output data path. A  
controller is operable to transfer one or more blocks data having a selected block size  
from the tail FIFO to the memory and from the memory to the head FIFO, to achieve a  
selected efficiency level.

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